

AMENDMENT

IN THE CLAIMS

Please amend the claims as follows:

- 1-7. (CANCELLED)
7. (CURRENTLY AMENDED) A method of controlling an active noise control system, comprising:
 - defining a first gain in a physical path and a second gain in a spectral shaping path;
 - normalizing the second gain based on a system output value;
 - generating an actual response using an ideal model and the normalized second gain;
 - calculating a difference between an ideal response and the actual response to obtain an error signal; and
 - adjusting the system model based on the error signal.
8. (ORIGINAL) The method of claim 7, wherein the system output value is the actual response.
9. (ORIGINAL) The method of claim 8, wherein the second gain is calculated by dividing an ideal gain by a value based on the actual response.
10. (ORIGINAL) The method of claim 9, wherein the ideal gain is equal to the first gain.
11. (WITHDRAWN) The method of claim 8, wherein the second gain is calculated by dividing an ideal gain by a value based on the actual response and the ideal gain.
12. (WITHDRAWN) The method of claim 11, wherein the ideal gain is equal to the first gain.
13. (WITHDRAWN) The method of claim 7, wherein the system output value is the ideal response.

14. (WITHDRAWN) The method of claim 13, wherein the second gain is calculated by dividing an ideal gain by a value based on the ideal response.

15. (ORIGINAL) An active noise control system, comprising:
a sound generator that outputs a generated sound based on an engine operating characteristic;
a physical path through which the generated sound travels, the physical path having a first gain;
a spectral shaping path having an ideal model of the physical path and a second gain, wherein the generated sound is controlled by the ideal model and the second gain to generate an actual response;
a controller that calculates a difference between an ideal response of the active noise control system and the actual response to obtain an error signal and adjusts the system model based on the error signal.

16. (WITHDRAWN) The system of claim 15, wherein the ideal model initially overestimates the actual response.

17. (ORIGINAL) The system of claim 15, further comprising a spectral shaping subsystem that normalizes the second gain based on a system output value, wherein the actual response is generated using the ideal model and the normalized second gain.

18. (ORIGINAL) The system of claim 17, wherein the system output value is the actual response.

19. (ORIGINAL) The system of claim 18, wherein the second gain is calculated by dividing the first gain by a value based on the actual response.

20. (WITHDRAWN) The system of claim 18, wherein the second gain is calculated by dividing the first gain by a value based on the actual response and the first gain.

21. (WITHDRAWN) The system of claim 17, wherein the system output value is the ideal response, and wherein the second gain is calculated by dividing an ideal gain by a value based on the ideal response.

22. (NEW) The method as recited in claim 7, including the step of reducing the normalized second gain in response to an increase in power of the generated actual response beyond a desired limit.

23. (NEW) The system as recited in claim 15, wherein the controller reduces the second gain utilized to generate the actual response in response to an increase in power output of the sound generator beyond a desired power level